

W. W. CROOKER.
Polishing Wheel for Boot and Shoe Soles.

No. 233,211.

Patented Oct. 12, 1880.

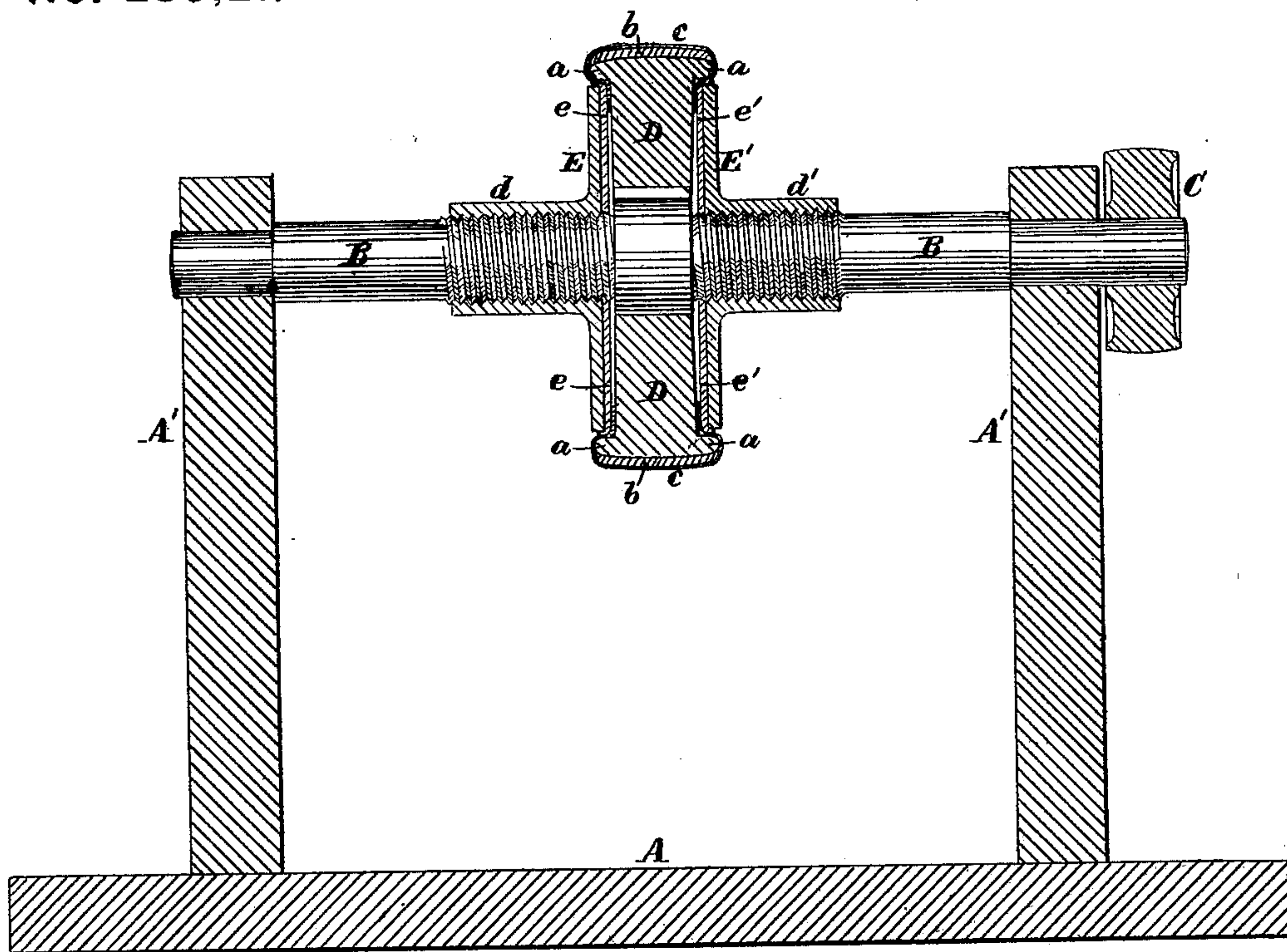


Fig. 2.

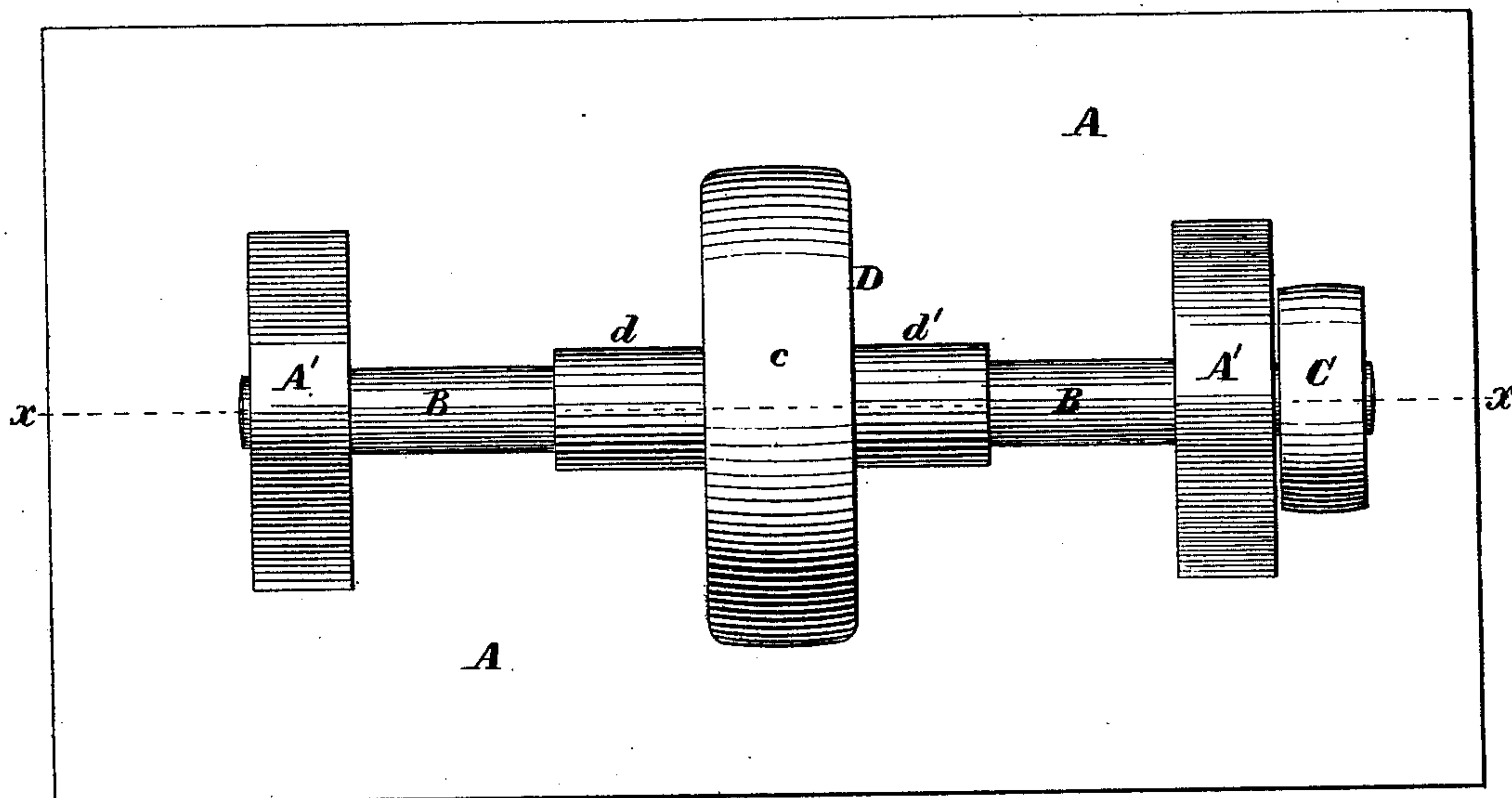


Fig. 1.

Witnesses:

E. A. Hemmenway.
F. G. Wallis

Inventor:

William W. Crooker
by N. C. Lombard
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM W. CROOKER, OF LYNN, MASSACHUSETTS, ASSIGNOR OF ONE-HALF
OF HIS RIGHT TO JOHN W. BRIMBLECOM, OF SAME PLACE.

POLISHING-WHEEL FOR BOOT AND SHOE SOLES.

SPECIFICATION forming part of Letters Patent No. 233,211, dated October 12, 1880.

Application filed January 8, 1880.

To all whom it may concern:

Be it known that I, WILLIAM W. CROOKER, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and
5 useful Improvements in Polishing-Wheels, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to a polishing-wheel for use in finishing the bottoms of boots and shoes,
10 and especially designed for polishing those portions of the sole which have previously been sandpapered, buffed, and colored, and especially to the construction of said wheel and to the particular material used to produce the pol-
15 ishing-surface; and it consists in the combination of a foundation-wheel secured upon a shaft and having formed in its radial faces sunken recesses to receive the edge of the envelope or
20 covering of flannel or other soft woolen cloth drawn over the edges of the annular lips or ribs bounding said recesses, and two circular disks fitted to and adapted to be moved on said
25 shaft in the direction of its length, and thereby be forced into said recesses, one upon either side of the foundation-wheel, and bind the edge
of the envelope or covering and draw it taut across the outer surface of said wheel.

It further consists in the combination of the recessed wheel secured upon a shaft, two cir-
30 cular disks or followers mounted upon said shaft, upon either side of said wheel, and adapted to be moved thereon toward or from said wheel, and a disk or ring of rubber secured to the inner face of each of said followers and pro-
35 jecting slightly beyond the peripheries thereof, and adapted to press the flannel or other soft woolen envelope or covering hard against the inner surfaces of the annular rings projecting from the sides of said wheel, and by its fric-
40 tion thereon draw said envelope taut over the outer face of the wheel.

Figure 1 of the drawings is a plan of a polishing-wheel illustrating my invention, and Fig. 2 is a central vertical section of the same
45 on line *xx* on Fig. 1.

A is the frame, provided with suitable bearings A' A', in which is mounted the shaft B, provided with the driving-pulley C, and having secured thereon the wheel D, which may be of
50 metal or wood, though I prefer wood, the outer

periphery of which is slightly crowned or convex in the direction of the length of the shaft, and the radial sides of which are recessed so as to form around the outer portions thereof the annular lips or ribs *aa*, as shown in Fig. 2. 55
The outer periphery of the wheel D is covered with a band of felt or other soft semi-elastic material, *b*, over which is tightly drawn an envelope or outer covering, *c*, of soft woolen cloth, preferably of flannel, the edges of which
60 are folded inward over the edges of the annular lips *aa* and are secured in position as follows: E and E' are two metal disks, provided with hubs *d* and *d'*, respectively, in which are formed female screw-threads fitted to and
65 engaging with corresponding male threads formed upon the shaft B in such a manner that said disks may be moved toward or from the wheel D and be made to press against the cloth envelope and clamp it to the wheel. The in- 70
ner faces, or at least the outer portions of the inner faces, of said disks are covered with thin rubber *e* and *e'*, which projects slightly beyond the periphery of said disks, and as said disks
75 are forced into the recesses in the sides of the wheel D the edges of the rubber are folded over the edges of said disks, and thereby serve to press the envelope *c* hard against the inner sur-
faces of the ribs *aa*, and by the friction thus created and the peculiar adhesive nature of the 80
rubber said envelope *c* is drawn taut over the face of the wheel D.

The screw-thread in the hubs *d* and *d'* of the disks E and E' may be dispensed with, if desired, said hubs having a smooth fit on the shaft 85
B, and independent nuts may be used to force said disks into the recesses in the sides of the wheel D in an obvious manner.

By this construction of the wheel the polishing-surface, which requires to be renewed quite 90
often, may be readily replaced by a fresh envelope or covering, with very little delay of the work.

What I claim as new, and desire to secure by Letters Patent of the United States, is— 95

1. The wheel D, provided with the annular lips *aa*, in combination with the disks E and E' and the flexible covering *c*, all arranged and adapted to operate substantially as described.

2. The combination of the wheel D, provided 100

with the annular lips *a a*, cushion of felt or other soft semi-elastic material *b*, an outer envelope or covering, *c*, of flannel or other soft woolen cloth, and clamping-disks *E* and *E'*, all arranged and adapted to operate substantially as and for the purposes described.

5 3. The combination of the wheel *D*, provided with the lips *a a*, covering *c*, clamping-disks *E* and *E'*, and rubber disks or rings *e* and *e'*,

all arranged and adapted to operate substantially as and for the purposes described.

Executed at Boston, Massachusetts, this 3d day of January, A. D. 1880.

WILLIAM W. CROOKER.

Witnesses:

F. G. WALLIS,

C. H. DODD.